

Downhole Drilling Network Using Burst Modulation Techniques

Abstract

A downhole drilling system is disclosed in one aspect of the present invention as including a drill string and a transmission line integrated into the drill string. Multiple network nodes are installed at selected intervals along the drill string and are adapted to communicate with one another through the transmission line. In order to efficiently allocate the available bandwidth, the network nodes are configured to use any of numerous burst modulation techniques to transmit data.